Journal of Neurosurgery

January 1986, Volume 64, Number 1

CLINICAL ARTICLES:

Posterior fossa arteriovenous malformations. C. G. DRAKE, A. H. FRIEDMAN, and S. J. PEERLESS 1

Intrinsic brain-stem tumors of childhood: surgical indications. F. EPSTEIN, and E. L. McCLEARY 11

Transsphenoidal extracapsular approach to pituitary tumors. N. HASHIMOTO, H. HANDA, and T. YAMAGAMI 16

Diagnosis and surgical treatment of disabling positional vertigo. M. B. MØLLER, A. R. MØLLER, P. J. JANNETTA, and L. SEKHAR 21

Incidence and etiology of intracerebral hemorrhage following carotid endarterectomy. R. A. SOLOMON, C. M. LOFTUS, D. O. QUEST, and J. W. CORRELL 29

Cystic meningiomas. Report of seven cases. G. PARISI, R. TROPEA, S. GIUFFRIDA, M. LOMBARDO, and F. GIUFFRÈ 35

Surgical stabilization of traumatic cervical spine dislocation using methyl methacrylate. Long-term results in 26 patients. T. A. DUFF 39

CLINICAL RESEARCH:

CSF dynamics and pressure-volume relationships in communicating hydrocephalus. M. KOSTELJANETZ 45

Effects of ACNU and radiotherapy on malignant glioma. K. TAKAKURA, H. ABE, R. TANAKA, *et al.* 53

Recurrence of intracranial meningiomas: the role played by regional multicentricity. B. BOROVICH, and Y. DORON ... 58

Vascular and neural pathology of lumbosacral spinal stenosis. R. WATANABE, and W. W. PARKE 64

Spinal cord stimulation in peripheral arterial disease. A cooperative study. J. BROSETA, J. BARBERÁ, J. A. DE VERA, J. L. BARCIA-SALORIO, G. GARCIA-MARCH, J. GONZÁLEZ-DARDER, F. ROVAINA, and V. JOANES 71

Effect of high-dose dexamethasone on outcome from severe head injury. N. M. DEARDEN, J. S. GIBSON, D. G. McDOWALL, R. M. GIBSON, and M. M. CAMERON 81

Physiological and metabolic response to isolated closed-head injury. Part 1: Basal metabolic state: correlations of metabolic and physiological parameters with fasting and stressed controls. C. S. DEUTSCHMAN, F. N. KONSTANTINIDES, S. RAUP, P. THIENPRASIT, and F. B. CERRA 89

LABORATORY INVESTIGATIONS:

Treatment of experimental stroke with opiate antagonists. Effects on neurological function, infarct size, and survival. D. S. BASKIN, Y. HOSOBUCHI, and J. C. GREVEL 99

Effects of rapid mannitol infusion on cerebral blood volume. A positron emission tomographic study in dogs and man. P. RAVUSSIN, D. P. ARCHER, J. L. TYLER, E. MEYER, M. ABOU-MADI, M. DIKSIC, L. YAMAMOTO, and D. TROP 104

***In vitro* killing of human glioblastoma by interleukin-2-activated autologous lymphocytes.** S. K. JACOBS, D. J. WILSON, P. L. KORNBLITH, and E. A. GRIMM 114

Development of cyclooxygenase and lipoxygenase metabolites of arachidonic acid after transient cerebral ischemia. R. J. DEMPSEY, M. W. ROY, K. MEYER, D. E. COWEN, and H. H. TAI 118

A model of brain abscess: septic homologous blood clot emboli in rats. H. MATSUURA, M. KUDO, Y. IKEDA, K. ISAYAMA, and S. NAKAZAWA 125

Effects of Nd:YAG and CO_2 lasers on cerebral microvasculature. Study in normal rabbit brain. T. KUROIWA, M. TSUYUMA, H. TAKEI, and Y. INABA 128

CASE REPORTS AND TECHNICAL NOTE:

Direct spinal arteriovenous fistula: a new type of spinal AVM. Case report. R. C. HEROS, G. M. DEBRUN, R. G. OJEMANN, P. L. LASJAUNIAS, and P. J. NAESSENS 134

Intracranial and intraspinal dissemination from a growth hormone-secreting pituitary tumor. Case report. N. HASHIMOTO, H. HANDA, and S. NISHI 140

Tremor and peripheral nerve entrapment. Case report. J. W. LITTLE, K. BURCHIEL, and P. NUTTER 145

Cerebral venous thrombosis due to high-altitude polycythemia. Case report. T. FUJIMAKI, M. MATSUTANI, A. ASAI, T. KOHNO, and M. KOIKE 148

Large extra-abdominal cyst as a postpartum complication of peritoneal shunt. Case report. P. NUGENT, and S. HOSHEK 151

Post-craniotomy wound infection caused by *Pseudallescheria boydii*. Case report. H. S. LAZARUS, J. P. MYERS, and R. J. BROCKER 153

Anorectal pressure monitoring during surgery on sacral lipomeningocele. Case report. K. IKEDA, T. KUBOTA, K. KASHIHARA, and S. YAMAMOTO 155

Intraoperative cervical spine stabilization using the halo ring and the Mayfield three-pin skull clamp. Technical note. A. H. RHEA, B. I. TRANMER, and C. E. GROSS 157

BOOK REVIEWS 159

NEUROSURGICAL FORUM: Letters to the editor 162

NOTICES 164

Journal of Neurosurgery

February 1986, Volume 64, Number 2

EDGAR A. KAHN, M.D., 1900–1985. RICHARD C. SCHNEIDER 167

CLINICAL ARTICLES:

Surgical management of aneurysms of the distal extracranial internal carotid artery. T. M. SUNDT, JR., B. W. PEARSON, D. G. PIEPGRAS, O. W. HOUSER, and B. MOKRI 169

Bifrontal interhemispheric approach to aneurysms of the anterior communicating artery. J. SUZUKI, K. MIZOI, and T. YOSHIMOTO 183

Outcome evaluation following subarachnoid hemorrhage. H. SÄVELAND, B. SONESSON, B. LJUNGGREN, *et al.* 191

Intracranial and orbital cavernous angiomas. A review of 30 cases. T. YAMASAKI, H. HANDA, J. YAMASHITA, *et al.* 197

Supratentorial ependymomas. Neuroimaging and clinicopathological correlation. R. S. CENTENO, A. A. LEE, J. WINTER, and D. BARBA 209

Sudden deterioration and death in patients with benign tumors of the third ventricle area. J. W. RYDER, B. K. KLEINSCHMIDT-DEMASTERS, and T. S. KELLER 216

CLINICAL RESEARCH:

Serum and urine zinc response in head-injured patients. C. J. MCCLAIN, D. L. TWYMAN, L. G. OTT, *et al.* 224

Cerebral hemodynamics in patients with acute severe head trauma. K. MESSETER, C. H. NORDSTRÖM, G. SUNDBÄRG, L. ALGOTSSON, and E. RYDING 231

Medulloblastoma in childhood: results of radical resection and low-dose neuraxis radiation therapy. T. TOMITA, and D. G. MCLONE 238

Early results of ion beam radiation therapy for sacral chordoma. A Northern California Oncology Group study. W. M. SAUNDERS, J. R. CASTRO, G. T. Y. CHEN, *et al.* 243

Biomechanical study of full-contact karate contrasted with boxing. M. L. SCHWARTZ, A. R. HUDSON, G. R. FERNIE, K. HAYASHI, and A. A. COLECLOUGH 248

Neurological deterioration after lumbar puncture below complete spinal subarachnoid block. P. H. HOLLIS, L. I. MALIS, and R. A. ZAPPULLA 253

LABORATORY INVESTIGATIONS:

***In vivo* imaging of intracranial human glioma xenografts comparing specific with nonspecific radiolabeled monoclonal antibodies.** D. E. BULLARD, C. J. ADAMS, R. E. COLEMAN, and D. D. BIGNER 257

Antifibrinolytic therapy of experimentally grown malignant brain tumors. R. SAWAYA, T. MANDYBUR, I. ORMSBY, and J. M. TEW, JR. 263

The kallikrein-kinin system as mediator in vasogenic brain edema. Part 3: Inhibition of the kallikrein-kinin system in traumatic brain swelling. A. UNTERBERG, C. DAUTERMANN, A. BAETHMANN, and W. MÜLLER-ESTERL 269

Mixing studies during intracarotid artery infusions in an *in vitro* model. R. J. LUTZ, R. L. DEDRICK, J. W. BORETOS, E. H. OLDFIELD, J. B. BLACKLOCK, and J. L. DOPPMAN 277

Drug streaming during intra-arterial chemotherapy. J. B. BLACKLOCK, D. C. WRIGHT, R. L. DEDRICK, *et al.* 284

Ultrastructural evidence of arterial denervation following experimental subarachnoid hemorrhage. T. A. DUFF, G. SCOTT, and J. A. FEILBACH 292

Variations in pressure-volume index and CSF outflow resistance at different locations in the feline craniospinal axis. H. TAKIZAWA, T. GABRA-SANDERS, and J. D. MILLER 298

Experimental spinal cord injury: quantitation of axonal damage by automated image analysis. H. IIZUKA, T. YAMAMOTO, Y. IWASAKI, H. KONNO, and S. KADOYA 304

CASE REPORTS:

Inadvertent middle cerebral artery embolism by a detachable balloon: management by embolectomy. Case report. K. W. SWANN, R. C. HEROS, G. DEBRUN, and C. NELSON 309

Optic nerve apoplexy. Report of two cases. P. L. REILLY, and P. E. OATEY 313

Hemangioblastoma of the cervicomedullary junction. Report of three cases. R. A. SANFORD, and R. A. SMITH 317

Spinal cord arteriovenous malformation in a neonate. Case report. T. S. PARK, W. S. CAIL, J. B. DELASHAW, and J. KATTWINKEL 322

Multiple brain abscesses associated with a mycotic aneurysm of the left common carotid artery. Case report. J. IMAMURA, and Y. WATANABE 325

Extraspinal meningioma. Case report. A. W. IBRAHIM, M. B. SATTI, and E. M. IBRAHIM 328

Aneurysmal bone cyst with fibrous dysplasia of the parietal bone. Report of two cases. C. L. BRANCH, JR., V. R. CHALLA, and D. L. KELLY, JR. 331

BOOK REVIEWS 336

NEUROSURGICAL FORUM: Letters to the editor 341

NOTICES 346

SCIENTIFIC PROGRAM: Annual Meeting of The American Association of Neurological Surgeons, April 13–17, 1986 348

Journal of Neurosurgery

March 1986, Volume 64, Number 3

167 CLINICAL ARTICLES:

Prognosis in subarachnoid hemorrhage of unknown etiology. R. JUUL, T. A. FREDRIKSEN, and R. RINGKJØB 359

169 **Preoperative evaluation and surgical management of the Arnold-Chiari II malformation.** J. L. VENES, K. L. BLACK, and J. T. LATACK 363

183 **Temporal lobectomy in children with epilepsy.** F. B. MEYER, W. R. MARSH, E. R. LAWS, JR., and F. W. SHARBROUGH ... 371

191 **Carotid body tumors: a subject review and suggested surgical approach.** F. B. MEYER, T. M. SUNDT, JR., and B. W. PEARSON 377

197 **Perimesencephalic cistern obliteration: a CT sign of life-threatening shunt failure.** D. L. JOHNSON, C. FITZ, D. C. MCCULLOUGH, and S. SCHWARZ 386

209 **Pressure-volume relationships in shunt-dependent childhood hydrocephalus. The zone of pressure instability in children with acute deterioration.** K. SHAPIRO, and A. FRIED 390

216 **Spinal cord tethering after traumatic paraplegia with late neurological deterioration.** T. S. RAGNARSSON, Q. J. DURWARD, and R. E. NORDGREN 397

224 CLINICAL RESEARCH:

231 **The occurrence of dural invasion in pituitary adenomas.** W. R. SELMAN, E. R. LAWS, JR., B. W. SCHEITHAUER, and S. M. CARPENTER 402

238 **Phase II trial of interferon-β for treatment of recurrent glioblastoma multiforme.** T. A. DUFF, E. BORDEN, J. BAY, J. PIEPMEIER, and K. SIELAFF 408

243 **Experience with Althesin in the management of persistently raised ICP following severe head injury.** R. BULLOCK, J. R. VAN DELLEN, D. CAMPBELL, I. OSBORN, and S. G. REINACH 414

248 **Nizofenone administration in the acute stage following subarachnoid hemorrhage. Results of a multi-center controlled double-blind clinical study.** T. OHTA, H. KIKUCHI, K. HASHI, and Y. KUDO 420

253 **Computer-assisted stereotaxic laser resection of intra-axial brain neoplasms.** P. J. KELLY, B. A. KALL, S. GOERSS, and F. EARNEST IV 427

257 **Echocardiographic detection and treatment of intraoperative air embolism.** S. SATO, S. TOYA, T. OHIRA, T. MINE, and N. H. GREIG 440

263 LABORATORY INVESTIGATIONS:

269 **Selective hemoglobin inhibition of endothelium-dependent vasodilation of rabbit basilar artery.** S. FUJIWARA, N. F. KASSELL, T. SASAKI, T. NAKAGOMI, and R. M. LEHMAN 445

277 ***In situ* cell kinetics studies on human neuroectodermal tumors with bromodeoxyuridine labeling.** T. HOSHINO, T. NAGASHIMA, J. A. MUROVIC, *et al* 453

284 **Effect of parenteral nutrition on cold-induced vasogenic edema in cats.** D. C. WATERS, J. T. HOFF, and K. L. BLACK ... 460

292 **Ultrastructural morphology of the olfactory pathway for cerebrospinal fluid drainage in the rabbit.** S. S. ERLICH, J. G. MCCOMB, S. HYMAN, and M. H. WEISS 466

298 **Effects of collagenase and chymopapain on spinal nerves and intervertebral discs of Cynomolgus monkeys.** B. C. ZOOK, and A. I. KOBRINE 474

304 **Microvascular anatomy of the interpeduncular fossa.** A. PEDROZA, M. DUJOVNY, J. I. AUSMAN, *et al* 484

CASE REPORTS AND TECHNICAL NOTE:

309 **Medulla oblongata edema associated with neurogenic pulmonary edema. Case report.** R. H. BROWN, JR., B. D. BEYERL, R. ISEKE, and M. H. LAVYNE 494

313 **Fusiform posterior cerebral artery aneurysm treated with excision and end-to-end anastomosis. Case report.** H. S.

317 CHANG, T. FUKUSHIMA, S. MIYAZAKI, and T. TAMAGAWA 501

322 **Granulomatous brain tumor caused by *Acanthamoeba*. Case report.** S. K. OFORI-KWAKYE, D. G. SIDEBOTTOM, J. HERBERT, E. G. FISCHER, and G. S. VISVESVARA 505

325 **Familial acromegaly with pituitary adenoma. Report of three affected siblings.** K. ABBASSIOUN, V. FATOUREHCHI, A.

328 AMIRJAMSHIDI, and N. A. MEIBODI 510

331 **Heterotopic new bone formation in the cervical spine following head injury. Case report.** Z. GROSWASSER, and I. REIDER-GROSWASSER 513

336 **Nasal glioma and encephalocele: two separate entities. Report of two cases.** M. YOUNUS, and P. E. COODE 516

341 **X-ray-translucent retractors in spine surgery. Technical note.** P. KNÖRINGER 520

346 BOOK REVIEWS 522

348 NEUROSURGICAL FORUM: Letters to the editor 525

NOTICES 527

Journal of Neurosurgery

April 1986, Volume 64, Number 4

SPECIAL ARTICLE:

Recognition of special qualifications in neurological surgery. D. G. KLINE, and M. S. MAHALEY, JR. 531

CLINICAL ARTICLES:

Spontaneous subarachnoid hemorrhage and negative cerebral panangiography. Review of 140 cases. M. S. M. ALEXANDER, P. S. DIAS, and D. UTTLEY 537

Subcortical electrical stimulation for control of intractable pain in humans. Report of 122 cases (1970–1984). Y. HOSOBUCHI 543

Unusual clinical manifestations of dural arteriovenous malformations. F. VIÑUELA, A. J. FOX, D. M. PELZ, and C. G. DRAKE 554

Lateral suboccipital approach for vertebral and vertebrobasilar artery lesions. R. C. HEROS 559

Management of symptomatic deep venous thrombosis and pulmonary embolism on a neurosurgical service. K. W. SWANN, P. MCL. BLACK, and M. F. BAKER 563

Intracranial tuberculoma and the CT scan. U. S. VENGSARKAR, R. P. PISIPATY, B. PAREKH, V. G. PANCHAL, and M. N. SHETTY 568

Medical imaging of fetal ventriculomegaly. W. C. HANIGAN, J. GIBSON, N. J. KLEOPOULOS, T. CUSACK, G. ZWICKY and R. M. WRIGHT 575

CLINICAL RESEARCH:

Interstitial hyperthermia and iridium brachytherapy in treatment of malignant glioma. A Phase I clinical trial. D. W. ROBERTS, C. T. COUGHLIN, T. Z. WONG, J. D. FRATKIN, E. B. DOUPLE, and J. W. STROHBEHN 581

The proliferative potential of human pituitary tumors *in situ*. T. NAGASHIMA, J. A. MUROVIC, T. HOSHINO, C. B. WILSON, and S. J. DEARMOND 588

Cerebral vasospasm evaluated by transcranial ultrasound correlated with clinical grade and CT-visualized subarachnoid hemorrhage. R. W. SEILER, P. GROLIMUND, R. AASLID, P. HUBER, and H. NORNES 594

Recording of spinal somatosensory evoked potentials for intraoperative spinal cord monitoring. I. R. WHITTLE, I. H. JOHNSTON, and M. BESSER 601

Surgical experience following intervertebral discolysis with collagenase. R. G. FISHER, J. W. BROMLEY, G. L. BECKER, M. BROWN, and V. MOONEY 613

LABORATORY INVESTIGATIONS:

Effect of nimodipine on intracellular brain pH, cortical blood flow, and EEG in experimental focal cerebral ischemia. F. B. MEYER, R. E. ANDERSON, T. L. YAKSH, and T. M. SUNDT, JR. 617

Effects of hypertonic saline versus lactated Ringer's solution on cerebral oxygen transport during resuscitation from hemorrhagic shock. D. S. PROUGH, J. C. JOHNSON, D. A. STUMP, E. H. STULLKEN, G. V. POOLE, JR., and G. HOWARD 627

Protection against experimental ischemic spinal cord injury. C. S. ROBERTSON, R. FOLTZ, R. G. GROSSMAN, and J. C. GOODMAN 633

Focal brain edema associated with acute arterial hypertension. S. HATASHITA, J. T. HOFF, and S. ISHII 643

Vasculature to the germinal matrix in rabbit pups. E. G. FISCHER, A. V. LORENZO, W. J. LANDIS, K. WELCH, S. K. OFORI-KWAKYE, B. DORVAL, K. J. HODGENS, and C. S. KERR 650

CASE REPORTS AND TECHNICAL NOTE:

Cerebral astroblastoma: immunohistochemical and ultrastructural features. Case report. A. N. HUSAIN, and J. E. LEESTMA 657

Repair of a vertebral artery dissection. Case report. J. J. ALEXANDER, S. GLAGOV, and C. K. ZARINS 662

Peripheral nerve entrapment due to steroid-induced lipomatosis of the popliteal fossa. Case report. C. E. RAWLINGS III, D. E. BULLARD, and D. S. CALDWELL 666

Distal posterior cerebral artery aneurysm. Case report. R. K. SIMPSON, JR., and W. D. PARKER 669

Delayed intracerebral hematoma at the site of a subarachnoid bolt pressure monitor. Case report. H. BOBO, J. D. MILLER, O. B. EVANS, and J. P. KAPP 673

Cerebrospinal fluid rhinorrhea following surgery for acoustic neurinoma. Report of two cases. D. S. GORDON, and A. G. KERR 676

Clip-grafts in microvascular decompression of the posterior fossa. Technical note. E. R. LAWS, JR., P. J. KELLY, and T. M. SUNDT, JR. 679

BOOK REVIEWS 682

NEUROSURGICAL FORUM: **Letters to the editor** 686

NOTICES 690

Journal of Neurosurgery

May 1986, Volume 64, Number 5

REVIEW ARTICLE: **The right hemisphere: neuropsychological functions.** K. M. HEILMAN, D. BOWERS, E. VALENSTEIN, and R. T. WATSON 693

SPECIAL ARTICLE: **W. W. Keen and the dawn of American neurosurgery.** W. F. BINGHAM 705

CLINICAL ARTICLES:

Long-term results in transsphenoidal removal of nonfunctioning pituitary adenomas. M. J. EBERSOLD, L. M. QUAST, E. R. LAWS, JR., B. SCHEITHAUER, and R. V. RANDALL 713

Intracranial cavernous angioma: presentation and management. P. TAGLE, I. HUETE, J. MÉNDEZ, and S. DEL VILLAR 720

Neurological manifestations of intracranial dural arteriovenous malformations. P. LASJAUNIAS, M. CHIU, K. TER BRUGGE, A. TOLIA, M. HURTH, and M. BERNSTEIN 724

The transtorcular embolization of vein of Galen aneurysms. J. P. MICKLE, and R. G. QUISLING 731

Correlation of radiological features to failure of lumbar intervertebral disc chemonucleolysis. O. W. HOUSER, B. M. ONOFRIO, G. S. FORBES, and H. L. BAKER, JR. 736

CLINICAL RESEARCH:

Interleukin-2 and autologous lymphokine-activated killer cells in the treatment of malignant glioma. Preliminary report. S. K. JACOBS, D. J. WILSON, P. L. KORNBLITH, and E. A. GRIMM 743

Differential diagnosis of CT-hypodense cranial lesions with indium-111-oxine-labeled leukocytes. C. BELLOTTI, M. G. ARAGNO, M. MEDINA, A. L. VIGLIETTI, G. OLIVERI, F. ETTORRE, S. BARRALE, and G. CAMUZZINI 750

The effect of mannitol on cerebral blood flow. J. J. JAFAR, L. M. JOHNS, and S. F. MULLAN 754

Computerized tomography, magnetic resonance imaging, and positron emission tomography in the study of brain trauma. Preliminary observations. T. W. LANGFITT, W. D. OBRIST, A. ALAVI, R. I. GROSSMAN, R. ZIMMERMAN, J. JAGGI, B. UZZELL, M. REIVICH, and D. R. PATTON 760

LABORATORY INVESTIGATIONS:

Distribution, retention, and phototoxicity of hematoporphyrin derivative in a rat glioma. Intraneoplastic versus intraperitoneal injection. H. KOSTRON, D. A. BELLNIER, C. W. LIN, M. R. SWARTZ, and R. L. MARTUZA 768

***In vitro* photoradiation therapy of the rat 9L gliosarcoma.** D. HAMILTON, J. D. S. MCKEAN, J. TULIP, D. BOISVERT, and J. CUMMINS 775

Effect of naloxone on cerebral perfusion and cardiac performance during experimental cerebral ischemia. R. J. HARIRI, E. L. SUPRA, J. P. ROBERTS, and M. H. LAVYNE 780

Effects of fluid-percussion brain injury on regional cerebral blood flow and pial arteriolar diameter. D. S. DEWITT, L. W. JENKINS, E. P. WEI, H. LUTZ, D. P. BECKER, and H. A. KONTOS 787

Nuclear magnetic resonance imaging and spectroscopy in experimental brain edema in a rat model. J. B. BEDERSON, H. M. BARTKOWSKI, K. MOON, M. HALKS-MILLER, M. C. NISHIMURA, M. BRANT-ZAWADSKI, and L. H. PITTS 795

Superoxide production in experimental brain injury. H. A. KONTOS, and E. P. WEI 803

CASE REPORTS AND TECHNICAL NOTES:

Papillary meningioma involving the oculomotor nerve in an infant. Case report. J. H. PIATT, JR., G. A. CAMPBELL, and W. J. OAKES 808

Delayed brain abscess related to a retained foreign body with culture of *Clostridium bifermentans*. Case report. T. L. PENCEK, and K. J. BURCHIEL 813

Intraoperative angiography using a portable digital subtraction unit. Technical note. K. T. FOLEY, L. D. CAHAN, and G. B. HIESHIMA 816

Table-fixed retractor system for noncranial surgery. Technical note. R. L. SAUNDERS 819

A new microclip for vascular occlusion. Technical note. B. T. ANDREWS, A. LUTZ, J. B. BEDERSON, and L. H. PITTS 822

Miniclips and microclips for surgical hemostasis. Technical note. T. M. SUNDT, JR., and G. KEES, JR. 824

BOOK REVIEWS 826

NEUROSURGICAL FORUM: **Letters to the editor** 829

NOTICES 831

Journal of Neurosurgery

June 1986, Volume 64, Number 6

CLINICAL ARTICLES:

Intracranial arachnoid cysts in children. G. R. HARSH IV, M. S. B. EDWARDS, and C. B. WILSON 835

Suprascapular nerve entrapment. A summary of seven cases. M. N. HADLEY, V. K. H. SONNTAG, and H. W. PITTMAN .. 843

Arteriovenous malformations of the posterior fossa. Clinical presentation, diagnostic evaluation, and surgical treatment. H. BATJER, and D. SAMSON 849

Management of arteriovenous malformations of the brain stem. R. A. SOLOMON, and B. M. STEIN 857

Intracranial tumors in patients with facial pain. E. BULLITT, J. M. TEW, and J. BOYD 865

Stereotaxic surgery with a magnetic resonance- and computerized tomography-compatible system. L. D. LUNSFORD, A. J. MARTINEZ, and R. E. LATCHAW 872

Operative management of tumors involving the cavernous sinus. L. N. SEKHAR, and A. R. MØLLER 879

Continuous intrathecal hydromorphone and clonidine for intractable cancer pain. D. W. COOMBS, R. L. SAUNDERS, J. D. FRATKIN, L. E. JENSEN, and C. A. MURPHY 890

CLINICAL RESEARCH:

Assessment of nutritional requirements of head-injured patients. G. L. CLIFTON, C. S. ROBERTSON, and S. C. CHOI 895

Risk factors for postoperative neurosurgical wound infection. A case-control study. H. D. MOLLMAN, and S. J. HAINES 902

Reduced platelet function in subarachnoid hemorrhage. S. A. TSEMENTZIS, J. S. GILL, E. R. HITCHCOCK, J. A. HARTLEY, S. K. GILL, and D. G. BEEVERS 907

LABORATORY INVESTIGATIONS:

BSS Plus: a potential irrigating solution for neurosurgery. G. A. MEYER, D. J. MAIMAN, H. F. EDELHAUSER, O. J. LORENZETTI, and J. GARANCIS 911

Laser photochemotherapy of rhodamine-123 sensitized human glioma cells *in vitro*. S. K. POWERS, S. PRIBIL, G. Y. GILLESPIE III, and P. J. WATKINS 918

Cerebral effects of hypocapnia plus nitroglycerin-induced hypotension in dogs. A. A. ARTRU, K. WRIGHT, and P. S. COLLEY 924

Reaction of rabbit lateral periventricular tissue to shunt tubing implants. M. R. DEL BIGIO, and J. E. BRUNI 932

Effect of vasopressin on cold-induced brain edema in cats. R. F. REEDER, E. E. NATTIE, and W. G. NORTH 941

A pharmacological analysis of the pathophysiological mechanisms of posttraumatic spinal cord ischemia. E. D. HALL, and D. L. WOLF 951

CASE REPORTS AND TECHNICAL NOTE:

Radiological and pathological aspects of dural arteriovenous fistulas. Case report. D. A. GRAEB, and C. L. DOLMAN .. 962

Primary leptomeningeal ependymoblastoma. Case report. C. WADA, A. KURATA, R. HIROSE, Y. TAZAKI, S. KAN, Y. ISHIHARA, and T. KAMEYA 968

Large intramedullary lipoma of the cervical cord and posterior fossa. Case report. K. MORI, Y. KAMIMURA, Y. UCHIDA, M. KURISAKA, and S. EGUCHI 974

Temporalis myofascial repair of traumatic defects of the anterior fossa. Technical note. R. P. GILLESPIE, F. W. SHAGETS, and R. A. DE LOS REYES 977

BOOK REVIEWS 979

NEUROSURGICAL FORUM: **Letters to the editor** 984

NOTICES 990

INDEX TO VOLUME 64 994

335
343
349
357
365
372
379
390
895
902
907
911
918
924
932
941
951
962
968
974
977
979
984
990
994